WHAT IS CLAIMED IS:

1. A sophisticated postgenomic system for registration, identifying and processing of drug specific data, which links chemical, molecular modelling, bioinformatic, genetic, epidemiological, and molecular diagnostic data in order to develop prospective theragenomic information, and which comprises

- a master database correlating patterns of gene expression and genetic polymorphisms with drug-induced i. e. drug-related adverse effects and drug structure,
- a data-tool for structural and genetic fingerprints predictive for adverse effects in individual patients, and
- means for coupling the master database and the predictive tool in such a way that electronically prospective theragenomic information can be developed which allows the safe use of a given drug or a safe drug therapy, which is, with high probability, free of adverse drug reactions in an individual patient, wherein

the master database is in a form such that data records of the following type can be entered:

- Basic drug information such as for example information to intermediates, metabolites, adducts, targets, mimics, pathways, 2D-structures, 3D-structures and similarities.
- Clinical endpoint information such as for example drugs, type of endpoint, frequency.
- Drug-induced effects by genes on, as for example, receptors, promoters, transcription factors, responsive elements, expression patterns, gene function, 3D-structure, adduct targets, and autoantigens.
- Drug-induced effects to allelic variants, such as for example, SNP's, splice variants, and amplifications on function(s), 3D-structure, frequencies, ethnic differences, predictive power, selectivity and sensitivity.

2. System according to claim 1, wherein the predictive tool is in a form such that each individual patient-specific data comprises a set of selected yet predictive structural and genetic information which are presented on, for example, a gene chip.

3. System according to claim 2, wherein the data are classified into various subgroups as for example in subgroups dependent of the sex and/or of the age of the patients or in subgroups corresponding to clinical pictures and/or risk groups.

4. System according to claim 1, wherein it further comprises means which make available the master database and the predictive-tool to the public via the Internet.

5. A Method carrying out with a system according to claim 1, wherein the master database is being coupled to the database of the predictive data-tool in such a way that a user of the system can develop and carry out different screening approaches either to verify the sociability of drugs for a specific selected category of patients or to search a specific drug for a selected category of patients which do not have adverse drug reactions or to make risk-analyses.

6. Method according to claim 5, wherein the screening approaches is realised online via the Internet.